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BOSE MCKINNEY & EVANS LLP
JAMES COLES
135 N PENNSYLVANIA ST
SUITE 2700
INDIANAPOLIS, IN 46204

EXAMINER
BLECK, CAROLYN M

ART UNIT	PAPER NUMBER
3626	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	09/520,419	MEEK ET AL.
	Examiner	Art Unit	
	Carolyn M. Bleck	3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/26/07*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,8-10,22 and 28-43* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-10,22 and 28-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Notice to Applicant

1.   This communication is in response to the RCE filed on 26 January 2006. Claims

1-4, 8-10, 22, and 28-43 are pending. Claims 1 and 8 have been amended. Claims 28-

43 are newly added.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-3, 7-10, and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wong et al. (5,976,082) in view of Mebane (5,486,999).

(A) As per claim 1, Wong discloses a method of identifying patients at high risk of

adverse health outcomes (col. 1 lines 9-12, col. 2 lines 31-45, col. 3 lines 42-48, col. 5

lines 13-25 and 31-40, and col. 15 lines 58-67) comprising:

        (a) receiving (reads on "collecting"), storing, and extracting information from a

patient record (reads on "individual") for a predetermined set of criteria or predictors

(Fig. 1A-1B and 4, Abstract lines 1-24, col. 2 lines 49-61, col. 3 lines 58-67, col. 4 lines

24-34, col. 5 line 66 to col. 6 line 16, col. 6 lines 44-51, col. 7 lines 12-21, and col. 17

line 49 to col. 18 line 4);

(b) assigning, based upon information from a patient record, a separate value to

each predictor of the set of predetermined criteria or predictors (Abstract lines 1-24, col.

2 lines 61-62, col. 4 lines 62-66, col. 5 lines 3-12, col. 6 lines 44-51 and lines 64-67, col.

8 lines 18-22, col. 12 lines 27-39, and col. 13 lines 1-41);

(c) generating, based upon a prediction model and the separate values assigned

to the predetermined set of criteria or predictors, risk subgroups (reads on "risk level") of

the patient using health care resources at a predetermined level, such as cost, over a

predetermined time interval or window (Fig. 6A-6B, Abstract lines 1-24, col. 1 lines 48-

60, col. 2 lines 38-45 and lines 64-67, col. 3 lines 1-7, col. 3 lines 42-48, col. 4 line 65 to

col. 5 line 3, col. 5 lines 13-25, col. 6 lines 44-63, col. 8 lines 33-35, col. 12 lines 7-18,

col. 13 lines 51-60, and col. 18 lines 15-23 and lines 28-41);

(d) defining, based upon information, whether a first predictor is reflective of a

correlation to a patient using health care resources at a predetermined level, such as

cost, over a predetermined time interval or window (col. 2 lines 62-67, col. 3 lines 1-7

and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines 44-51, col.

7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 14 lines 59-67, and col. 15 lines 1-

54);

(e) assigning, based upon information, a first dichotomous value, such as "1", to

the separate value for the first predictor in response to defining that the first predictor is

an indicator of a high risk of a patient using health care resources at a predetermined

level, such as cost, over a predetermined time interval or window (col. 2 lines 62-67, col.
3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines
44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13 lines 22-41, col. 14
lines 59-67, and col. 15 lines 1-54); and

(f) assigning, based upon information, a second dichotomous value, such as "0",
to the separate value for the first predictor in response to defining that the first predictor
is not an indicator of a high risk of a patient using health care resources at a
predetermined level, such as cost, over a predetermined time interval or window (col. 2
lines 62-67, col. 3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines
1-25, col. 6 lines 44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13
lines 22-41, col. 14 lines 59-67, and col. 15 lines 1-54).

Wong fails to expressly disclose collecting self-reported information from an
individual about their perceived health.

Mebane discloses collecting information from an individual in a questionnaire
about their perceived health (col. 15 line 6 to col. 16 line 27, Appendix A – see col. 15-
18).

At the time the invention was made, it would have been obvious to one of
ordinary skill in the art to include the features of Mebane within the method of Wong
with the motivation of efficiently allocating medical resources based on the patient's
needs (Mebane; col. 1 lines 45-59).

(B) As per claim 2, the relevant teachings of Wong are as discussed in the rejections

above, and incorporated herein.

Wong fails to expressly disclose presenting an individual with a self assessment

questionnaire designed to elicit information from an individual for a predetermined set of

predictive factors. However, Wong includes receiving (reads on "collecting"), storing,

and extracting information from a patient data record or file (reads on "individual") for a

predetermined set of criteria or predictors (Fig. 1A-1B and 4, Abstract lines 1-24, col. 2

lines 49-61, col. 3 lines 58-67, col. 4 lines 24-34, col. 5 line 66 to col. 6 line 16, col. 6

lines 26-51, col. 7 lines 12-21, col. 8 lines 45-60, col. 12 line 46 to col. 13 line 17, and

col. 17 line 49 to col. 18 line 4). Note, Wong receiving information in a patient file is

considered to be a form of eliciting information from an individual.

Mebane discloses presenting a patient with a Lifestyle Questionnaire designed to

determine selected lifestyle characteristics of the patient, wherein the questionnaire

contains a set of input variables used to determine health care utilization (Fig. 4A, col. 2

lines 10-28, col. 5 lines 1-67, col. 6 Table 1, and col. 16 –18 Appendix A).

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the art to include the aforementioned component of Mebane within the

method taught by Wong with the motivation of improving the quality of treatment and

outcomes for patients and reducing the cost for health care services by analyzing

information about a patient's medical history and record (Wong; col. 2 lines 38-45).

(C) As per claim 3, the relevant teachings of Wong are as discussed in the rejections above, and incorporated herein.

Wong discloses a predetermined set of criteria or predictors, wherein the predictors include past healthcare use factors, such as number of hospitalizations, emergency services, or physician office visits, demographic factors, such as gender or age, and disease factors, such as diabetes or congestive heart failure (Fig. 1A-1B and 4, Abstract lines 1-24, col. 2 lines 49-61, col. 3 lines 58-67, col. 4 lines 24-52, col. 5 lines 1-12, col. 5 line 66 to col. 6 line 16, col. 6 lines 26-67, col. 7 lines 12-21, col. 8 lines 45-60, col. 12 line 46 to col. 13 line 17, and col. 17 line 49 to col. 18 line 4).

In addition, insofar as Applicant recites "predetermined set of predictive factors consisting of...," it is irrelevant whether or not Wong and Mebane disclose every single statement recited in the claim.

The remainder of claim 3 repeats the same limitations as claim 2, and is therefore rejected for the same reasons given for claim 2, and incorporated herein. The motivation for combining Mebane with Wong is given above in claim 2, and incorporated herein.

(D) As per claim 7, the relevant teachings of Wong are as discussed in the rejections above, and incorporated herein.

Wong fails to expressly discloses determining whether each predictive factor of a set of predictive factors is indicative of a high risk of an individual utilizing healthcare services at a predetermined level within a prospective time span, assigning a first

dichotomous value or a "1" to each separate value of each predictive factor of the set of

predictive factors that is determined to be indicative of a high risk, and assigning a

second dichotomous value or a "0" to each separate value of each predictive factor of

the set of predictive factors that is determined to not be indicative of a high risk.

However, Wong discloses the following for a single predictor:

(a) defining, based upon information, whether a first predictor is reflective of a

correlation to a patient using health care resources at a predetermined level, such as

cost, over a predetermined time interval or window (col. 2 lines 62-67, col. 3 lines 1-7

and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines 44-51, col.

7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 14 lines 59-67, and col. 15 lines 1-

54);

(b) assigning, based upon information, a first dichotomous value, such as "1", to

the separate value for the first predictor in response to defining that the first predictor is

an indicator of a high risk of a patient using health care resources at a predetermined

level, such as cost, over a predetermined time interval or window (col. 2 lines 62-67, col.

3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines

44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13 lines 22-41, col. 14

lines 59-67, and col. 15 lines 1-54); and

(c) assigning, based upon information, a second dichotomous value, such as "0",

to the separate value for the first predictor in response to defining that the first predictor

is not an indicator of a high risk of a patient using health care resources at a

predetermined level, such as cost, over a predetermined time interval or window (col. 2

lines 62-67, col. 3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines 44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13 lines 22-41, col. 14 lines 59-67, and col. 15 lines 1-54).

As per the recitation of additional or separate dichotomous values, the courts have broadly held that the duplication of parts is obvious. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). As such, these changes do not present a patentable distinction over the applied prior art of record.

(E) As per claim 8, Wong discloses defining, based upon risk subgroups (reads on "risk level"), whether a high risk exists of the patient using healthcare resources at a predetermined level, such as cost, over a predetermined time interval or window (Abstract lines 1-24, col. 3 lines 42-48, col. 5 lines 1-25, col. 5 lines 31-40, col. 6 lines 44-51, and col. 13 lines 51-60), and defining, based upon information from a patient, a targeted intervention for a patient in response to defining that a high risk exists of the patient using healthcare resources at a predetermined level, such as cost, over a predetermined time interval or window (Abstract lines 1-24, col. 3 lines 42-48, col. 5 lines 1-25, col. 5 lines 31-65, col. 6 lines 44-51, col. 13 lines 51-60, and col. 15 lines 58-67). Wong discloses "probability value exceeding a predetermined threshold" (see col. 14 line 49 to col. 15 line 13, col. 15 lines 40-54).

(F) As per claim 9, Wong discloses generating, based upon separate values assigned to each predictor and a model generated using multiple logistic regression, a risk level

of the patient using healthcare resources at a predetermined level, such as cost, over a predetermined time interval or window (Abstract lines 1-24, col. 3 lines 42-48, col. 5 lines 1-30, col. 5 lines 29-65, col. 6 lines 44-51, col. 12 lines 11-18, col. 13 lines 51-60, and col. 14 lines 49-58).

(G) As per claim 10, Wong discloses generating, based upon separate values assigned to the set of predictors and a model generated using multiple logistic regression, a probability or likelihood indicating the risk level of the patient using healthcare resources at a predetermined level, such as cost, over a predetermined time interval or window (Abstract lines 1-24, col. 3 lines 42-48, col. 5 lines 1-30, col. 5 lines 29-65, col. 6 lines 44-51, col. 12 lines 11-18, col. 13 lines 51-60, and col. 14 line 60 to col. 15 line 67).

(H) As per claims 22, Wong discloses:

(a) determining a resulting subset of variables from a set of variables or predictors best reflecting a correlation to patients who are at high risk for adverse health outcomes, consequently, resulting in substantial use of health care resources (e.g., funds) (Fig. 1A-1B and 4, Abstract lines 1-24, col. 2 lines 38-61, col. 3 lines 58-67, col. 4 lines 24-34, col. 4 line 61 to col. 5 line 25, col. 5 line 66 to col. 6 line 16, col. 6 lines 44-51, col. 7 lines 12-21, col. 8 line 65 to col. 9 line 5, and col. 17 line 49 to col. 18 line 4); and

(b) defining points A, B, and C, wherein A represents the farthest past event, wherein B represents the present, wherein C can be defined by the last day for which

an individual is still enrolled and eligible for benefits within a health plan, wherein

A<B<C, and wherein the prediction of congestive heart failure hospitalization includes

defining a time period between B and C such as 6 months used to predict CHF

hospitalization within the next 6 months (col. 13 line 48 to col. 14 line 48). It is noted

that the prediction time period of 6 months as discussed above in Wong is a

"prospective time span."

The remainder of claim 22 repeats the same limitations as claim 1, and are

therefore rejected for the same reasons given for those claims, and incorporated herein.

4.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et

al. (5,976,082) and Mebane (5,486,999) as applied to claim 1 above, and further in view

of Silver (6,269,339).

(A) As per claim 4, the relevant teachings of Wong are as discussed in the rejections

above, and incorporated herein.

Wong discloses receiving (reads on "collecting"), storing, and extracting

information from a patient data record or file (reads on "individual") for a predetermined

set of criteria or predictors (Fig. 1A-1B and 4, Abstract lines 1-24, col. 2 lines 49-61, col.

3 lines 58-67, col. 4 lines 24-34, col. 5 line 66 to col. 6 line 16, col. 6 lines 26-51, col. 7

lines 12-21, col. 8 lines 45-60, col. 12 line 46 to col. 13 line 17, and col. 17 line 49 to col.

18 line 4).

Wong fails to expressly disclose presenting, to a web browser, a questionnaire that elicits information from an individual for a predetermined set of predictive factors, and receiving the information via a web browser in response to presenting the questionnaire.

Silver discloses presenting on a client computer system, over the Internet an interface for data input (reads on "web browser"), wherein the interface includes a questionnaire for inputting information from a patient for a set of relative risk factors (Fig. 3-6, col. 3 lines 25-48, col. 7 line 59 to col. 8 line 40, and col. 9 line 42 to col. 10 line 26), and receiving the information at a server over the Internet in response to presenting the questionnaire through an interface for data input (reads on "web browser") (Fig. 3-6, col. 3 lines 25-48, col. 7 line 59 to col. 8 line 40, and col. 9 line 42 to col. 10 line 26), wherein the client computer system and the server communicate using the NetBIOS protocol (col. 7-8).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include the aforementioned components of Silver within the method taught by Wong with the motivation of improving the quality of treatment and outcomes for patients and reducing the cost for health care services by analyzing information about a patient's medical history and record (Wong; col. 2 lines 38-45), and providing a convenient means and decreasing the time to submit, update, and access information (Silver; col. 3 lines 49-51, col. 4 lines 48-64, and col. 8 lines 15-40).

5.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et

al. (5,976,082) and Mebane (5,486,999) as applied to claim 1 above, and further in view

of Lash (US 2001/0020229 A1).

(A) As per claim 28, Wong and Mebane do not expressly disclose:

        comparing said probability value to said predetermined threshold;

        identifying said individual as a high-risk person if said probability value

    exceeds said predetermined threshold; and

        identifying said individual as a low-risk person if said probability value does

    not exceed said predetermined threshold.

        Lash discloses this feature. Note Lash teaches:

comparing said probability value to said predetermined threshold (par. 8-12, 25, 38-39,

41-42, 49-50, claims 1-2);

identifying said individual as a high-risk person if said probability value

exceeds said predetermined threshold (par. 8-12, 25, 38-39, 41-42, 49-50, claims 1-2);

and

identifying said individual as a low-risk person if said probability value does not exceed

said predetermined threshold(par. 8-12, 25, 38-39, 41-42, 49-50, claims 1-2).

        At the time the invention was made, it would have been obvious to one of

ordinary skill in the art to include the features of Lash within the method of Wong and

Mebane with the motivation of targeting patients for preventative care based on a

threshold (par. 5 of Lash).

6.   Claims 29-31, 34-36, 37-38, 39, 41, and 43 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Wong et al. (5,976,082) in view of Mebane (5,486,999) and

Lash (US 2001/0020229 A1).

(A) As per claim 29, Wong discloses a method of identifying patients at high risk of

adverse health outcomes (col. 1 lines 9-12, col. 2 lines 31-45, col. 3 lines 42-48, col. 5

lines 13-25 and 31-40, and col. 15 lines 58-67) comprising:

        (a) receiving (reads on "collecting"), storing, and extracting information from a

patient record (reads on "individual") for a predetermined set of criteria or predictors

(Fig. 1A-1B and 4, Abstract lines 1-24, col. 2 lines 49-61, col. 3 lines 58-67, col. 4 lines

24-34, col. 5 line 66 to col. 6 line 16, col. 6 lines 44-51, col. 7 lines 12-21, and col. 17

line 49 to col. 18 line 4);

        (b) assigning, based upon information from a patient record, a separate value to

each predictor of the set of predetermined criteria or predictors (Abstract lines 1-24, col.

2 lines 61-62, col. 4 lines 62-66, col. 5 lines 3-12, col. 6 lines 44-51 and lines 64-67, col.

8 lines 18-22, col. 12 lines 27-39, and col. 13 lines 1-41);

        (c) generating, based upon a prediction model and the separate values assigned

to the predetermined set of criteria or predictors, risk subgroups (reads on "risk level") of

the patient using health care resources at a predetermined level, such as cost, over a

predetermined time interval or window (Fig. 6A-6B, Abstract lines 1-24, col. 1 lines 48-

60, col. 2 lines 38-45 and lines 64-67, col. 3 lines 1-7, col. 3 lines 42-48, col. 4 line 65 to

col. 5 line 3, col. 5 lines 13-25, col. 6 lines 44-63, col. 8 lines 33-35, col. 12 lines 7-18,

col. 13 lines 51-60, and col. 18 lines 15-23 and lines 28-41);

(d) defining, based upon information, whether a first predictor is reflective of a

correlation to a patient using health care resources at a predetermined level, such as

cost, over a predetermined time interval or window (col. 2 lines 62-67, col. 3 lines 1-7

and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines 44-51, col.

7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 14 lines 59-67, and col. 15 lines 1-

54);

(e) assigning, based upon information, a first dichotomous value, such as "1", to

the separate value for the first predictor in response to defining that the first predictor is

an indicator of a high risk of a patient using health care resources at a predetermined

level, such as cost, over a predetermined time interval or window (col. 2 lines 62-67, col.

3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines

44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13 lines 22-41, col. 14

lines 59-67, and col. 15 lines 1-54);

(f) assigning, based upon information, a second dichotomous value, such as "0",

to the separate value for the first predictor in response to defining that the first predictor

is not an indicator of a high risk of a patient using health care resources at a

predetermined level, such as cost, over a predetermined time interval or window (col. 2

lines 62-67, col. 3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines

1-25, col. 6 lines 44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13

lines 22-41, col. 14 lines 59-67, and col. 15 lines 1-54); and

(g) generating, based upon separate values assigned to the set of predictors and a model generated using multiple logistic regression, a probability or likelihood indicating the risk level of the patient using healthcare resources at a predetermined level, such as cost, over a predetermined time interval or window (Abstract lines 1-24, col. 3 lines 42-48, col. 5 lines 1-30, col. 5 lines 29-65, col. 6 lines 44-51, col. 12 lines 11-18, col. 13 lines 51-60, and col. 14 line 60 to col. 15 line 67).

Wong fails to expressly disclose collecting self-reported information from an individual about their perceived health.

Mebane discloses collecting information from an individual in a questionnaire about their perceived health (col. 15 line 6 to col. 16 line 27, Appendix A – see col. 15-18).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Mebane within the method of Wong with the motivation of efficiently allocating medical resources based on the patient's needs (Mebane; col. 1 lines 45-59).

Wong and Mebane do not expressly disclose:

comparing said probability value to said predetermined threshold;

identifying said individual as a high-risk person if said probability value exceeds said predetermined threshold; and

identifying said individual as a low-risk person if said probability value does not exceed said predetermined threshold.

Lash discloses this feature. Note Lash teaches:

comparing said probability value to said predetermined threshold (par. 8-12, 25, 38-39,

41-42, 49-50, claims 1-2);

identifying said individual as a high-risk person if said probability value

exceeds said predetermined threshold (par. 8-12, 25, 38-39, 41-42, 49-50, claims 1-2);

and

identifying said individual as a low-risk person if said probability value does not exceed

said predetermined threshold(par. 8-12, 25, 38-39, 41-42, 49-50, claims 1-2).

At the time the invention was made, it would have been obvious to one of

ordinary skill in the art to include the features of Lash within the method of Wong and

Mebane with the motivation of targeting patients for preventative care based on a

threshold (par. 5 of Lash).

(B) As per claim 30, the relevant teachings of Wong are as discussed in the rejections

above, and incorporated herein.

Wong fails to expressly disclose presenting an individual with a self assessment

questionnaire designed to elicit information from an individual for a predetermined set of

predictive factors. However, Wong includes receiving (reads on "collecting"), storing,

and extracting information from a patient data record or file (reads on "individual") for a

predetermined set of criteria or predictors (Fig. 1A-1B and 4, Abstract lines 1-24, col. 2

lines 49-61, col. 3 lines 58-67, col. 4 lines 24-34, col. 5 line 66 to col. 6 line 16, col. 6

lines 26-51, col. 7 lines 12-21, col. 8 lines 45-60, col. 12 line 46 to col. 13 line 17, and

col. 17 line 49 to col. 18 line 4). Note, Wong receiving information in a patient file is

considered to be a form of eliciting information from an individual.

Mebane discloses presenting a patient with a Lifestyle Questionnaire designed to

determine selected lifestyle characteristics of the patient, wherein the questionnaire

contains a set of input variables used to determine health care utilization (Fig. 4A, col. 2

lines 10-28, col. 5 lines 1-67, col. 6 Table 1, and col. 16 –18 Appendix A).

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the art to include the aforementioned component of Mebane within the

method taught by Wong with the motivation of improving the quality of treatment and

outcomes for patients and reducing the cost for health care services by analyzing

information about a patient's medical history and record (Wong; col. 2 lines 38-45).

(C) As per claim 31, Wong discloses associating each said distinct predictor variable of

said predetermined set of predictor variables to at least one of said plurality of questions

(Abstract lines 1-24, col. 2 lines 61-62, col. 4 lines 62-66, col. 5 lines 3-12, col. 6 lines

44-51 and lines 64-67, col. 8 lines 18-22, col. 12 lines 27-39, and col. 13 lines 1-41). As

per the discussion of a questionnaire, note the discussion in claim 1 with regards to the

Mebane reference. Mebane discloses assigning said second dichotomous value to any

distinct predictor variable of said predetermined set of predictor variables for which said

at least one of said plurality of questions associated with said any distinct predictor

variable is unanswered or answered inappropriately (col. 14 line 24 to col. 15 line 26:

see the discussion of a patient having a low score but having a narcotic dependency.

These patients are identified as high risk even though they have a low score. This is a

form of answering incorrectly or leaving a question unanswered.)

(D) As per claims 34-35, Wong, Mebane, and Lash do not expressly disclose using a

scannable form or IVR telephone system to elicit responses. However, the Examiner

respectfully submits that it is well known in the surveying arts to use both scannable

forms and IVR telephone systems to survey patients. The motivation for modifying the

prior art of Wong, Mebane, and Lash being to ensure that multiple methods of inputting

answers are used to accommodate many patients.

(E) As per claim 36, Wong discloses the following for a single predictor:

(a) defining, based upon information, whether a first predictor is reflective of a

correlation to a patient using health care resources at a predetermined level, such as

cost, over a predetermined time interval or window (col. 2 lines 62-67, col. 3 lines 1-7

and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines 44-51, col.

7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 14 lines 59-67, and col. 15 lines 1-

54);

(b) assigning, based upon information, a first dichotomous value, such as "1", to

the separate value for the first predictor in response to defining that the first predictor is

an indicator of a high risk of a patient using health care resources at a predetermined

level, such as cost, over a predetermined time interval or window (col. 2 lines 62-67, col.

3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines 1-25, col. 6 lines

44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13 lines 22-41, col. 14

lines 59-67, and col. 15 lines 1-54); and

(c) assigning, based upon information, a second dichotomous value, such as "0",

to the separate value for the first predictor in response to defining that the first predictor

is not an indicator of a high risk of a patient using health care resources at a

predetermined level, such as cost, over a predetermined time interval or window (col. 2

lines 62-67, col. 3 lines 1-7 and 57-60, col. 4 lines 24-44, col. 4 lines 51-60, col. 5 lines

1-25, col. 6 lines 44-51, col. 7 lines 22-64, col. 9 lines 1-5, col. 12 lines 7-10, col. 13

lines 22-41, col. 14 lines 59-67, and col. 15 lines 1-54).

(F) As per claim 37, Wong discloses wherein said predetermined predictive model is a

logistic regression predictive model (col. 14 line 59 to col. 15 line 13).

(G) As per claim 38, Wong discloses the equation in claim 37. See col. 14 line 59 to

col. 15 line 13. Lash discloses this equation also (par. 28-30).

(H) Claims 39, 41, and 43 repeat the limitations of claims 29-31, 34-36, and 37-38, and

are rejected for the same reasons as those claims.

7.   Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et

al. (5,976,082), Mebane (5,486,999), and Lash (US 2001/0020229 A1) as applied to

claim 29 above, and further in view of Joao (5,961,332).

(A) As per claim 32, Wong, Mebane, and Lash fail to expressly disclose identifying said individual as a high-risk person if said individual fails to answer or incorrectly answers more than a predetermined number of said plurality of questions of self assessment questionnaire. Joao discloses this feature. See col. 35 line 46 to col. 36 line 35. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the features of Joao within the method taught collectively by Wong, Mebane, and Lash with the motivation of ensuring that patients enter valid data and that valid data is analyzed (Joao; col. 2 lines 31-40).

8.   Claims 33 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (5,976,082), Mebane (5,486,999), and Lash (US 2001/0020229 A1) as applied to claim 29 and 39 above, and further in view of Silver (6,269,339).

(A) As per claim 33 and 40, the relevant teachings of Wong are as discussed in the rejections above, and incorporated herein.

Wong discloses receiving (reads on "collecting"), storing, and extracting information from a patient data record or file (reads on "individual") for a predetermined set of criteria or predictors (Fig. 1A-1B and 4, Abstract lines 1-24, col. 2 lines 49-61, col. 3 lines 58-67, col. 4 lines 24-34, col. 5 line 66 to col. 6 line 16, col. 6 lines 26-51, col. 7 lines 12-21, col. 8 lines 45-60, col. 12 line 46 to col. 13 line 17, and col. 17 line 49 to col. 18 line 4).

Wong, Mebane, and Lash fail to expressly disclose presenting, to a web browser, a questionnaire that elicits information from an individual for a predetermined set of predictive factors, and receiving the information via a web browser in response to presenting the questionnaire.

Silver discloses presenting on a client computer system, over the Internet an interface for data input (reads on "web browser"), wherein the interface includes a questionnaire for inputting information from a patient for a set of relative risk factors (Fig. 3-6, col. 3 lines 25-48, col. 7 line 59 to col. 8 line 40, and col. 9 line 42 to col. 10 line 26), and receiving the information at a server over the Internet in response to presenting the questionnaire through an interface for data input (reads on "web browser") (Fig. 3-6, col. 3 lines 25-48, col. 7 line 59 to col. 8 line 40, and col. 9 line 42 to col. 10 line 26), wherein the client computer system and the server communicate using the NetBIOS protocol (col. 7-8).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include the aforementioned components of Silver within the method taught by Wong with the motivation of improving the quality of treatment and outcomes for patients and reducing the cost for health care services by analyzing information about a patient's medical history and record (Wong; col. 2 lines 38-45), and providing a convenient means and decreasing the time to submit, update, and access information (Silver; col. 3 lines 49-51, col. 4 lines 48-64, and col. 8 lines 15-40).

Response to Arguments

9.   Applicant's arguments with respect to claims 1-4, 8-10, 22, and 28-43 have been

considered but are moot in view of the new ground(s) of rejection.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Carolyn Bleck whose telephone number is (571) 272-

6767. The Examiner can normally be reached on Monday-Thursday, 8:00am – 5:30pm,

and from 8:30am – 5:00pm on alternate Fridays.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Thomas can be reached at (571) 272-6776.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

11.   **Any response to this action should be mailed to:**

        Commissioner of Patents and Trademarks
        Washington, D.C. 20231

Or faxed to:

(571) 273-8300   [Official communications]

(571) 273-8300   [After Final communications labeled "Box AF"]

(571) 273-6767   [Informal/ Draft communications, labeled

"PROPOSED" or "DRAFT"]

Hand-delivered responses should be brought to the Knox Building, Alexandria, VA.

Carolyn Bleck

Carolyn M. Bleck
Patent Examiner
Art Unit 3626

1/30/07